



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.: 10/700,808

Applicant: Robert T. Bigelow

Filed: 11/04/2003

Title: Cover for use with an Inflatable
Modular Structure

TC/A.U.: 3633

Examiner: A, Phi Dieu Tran

Docket No.: BA-U-COV-00010

Confirmation No.: 4771

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Esq., USPTO No. 44,709

Signature: Franklin E. Gibbs

NOTICE ACCOMPANING APPEAL BRIEF

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Alexandria, VA 22313-1450

Sir:

A prior Appeal based upon the same application was filed September 18, 2008. However, before the Appeal was decided and before the time expired for the examiner to answer the Appeal, the examiner reopened prosecution by asserting a sixth Office Action dated December 12, 2008 based upon newly cited prior art. The examiner noted in the sixth Office Action that a new Appeal could be sustained without paying an additional fee (See Exhibit A). Applicant hereby exercises the option of a new Appeal without further fees as allowed.

If the Applicant's attorney can be of any further assistance, please call the undersigned at the number provided.

Respectfully submitted,

Dated: March 3, 2009

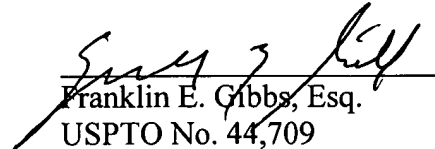

Franklin E. Gibbs, Esq.
USPTO No. 44,709
Tel.: (949) 833-8483

Exhibit A

Art Unit: 3633

In view of the Appeal Brief filed on 9/18/08, PROSECUTION IS HEREBY REOPENED. The claims are rejected as set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:/Brian E. Glessner/

Supervisory Patent Examiner, Art Unit 3633

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3633

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 6-11, 13-18, 20-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Moon et al (6892497).

Moon (figures 2, 14) shows a cover comprising a first segment (404) having a longitudinal axis, an interior surface and having an arcuate exterior surface disposed generally opposite the interior surface and perpendicular to the length of the axis, the arcuate exterior surface of the first segment of at least one substantially sheet like and substantially rigid structure, having at least one affixing member (the structure where part 440 goes into, figure 17), a second segment (406, figures 14-16) having a substantially flat surface, a plurality of ribs disposed between and joined to the inner surface of the first segment and the substantially flat surface of the second segment, a plurality of attachment elements (416) disposed on the ribs, the second segment is substantially rigid, the cover is substantially hollow, the first segment having an access opening, the second segment having an access opening.

With respect to the limitations to the core and the method of usage thereof, the elected invention is to the cover only and the limitations to the cover are also fully met by the reference above, and the reference is able to function as claimed.

Response to Arguments

Art Unit: 3633

1. Applicant's arguments with respect to claims 1-4,6-11,13-18,20-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art shows different covering device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phi D A whose telephone number is 571-272-6864. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on 571-272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Phi D A/
Primary Examiner, Art Unit 3633

Phi Dieu Tran A
12/8/08



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Signature: *Franklin E. Gibbs*

APPEAL BRIEF

Mail Stop: Appeal Brief-Patents

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Sir:

A prior Appeal based upon the same application was filed September 18, 2008. However, the examiner reopened prosecution by asserting a sixth Office Action dated December 12, 2008 based upon newly cited prior art. The present appeal is a response to the sixth Office Action rejecting claims 1-4, 6-11, 13-18, and 20-21. Claim 25 of the instant application was not addressed in the most recent Office Action and therefore should be ready for issuance. The Notice of Appeal was timely filed within the period for response to the outstanding Office Action via first-class mail. Appellant

respectfully seeks to have the rejection of claims 1-4, 6-11, 13-18, and 20-21 overturned.

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REAL PARTY IN INTEREST

The real party in interest is Bigelow Aerospace, North Las Vegas, NV, by assignment recorded 11/04/2003 (: Reel 015471, Frame 0908). The inventor of the present application assigned his interests to Bigelow Aerospace by assignment executed on 11/04/2003.

RELATED APPEALS AND INTERFERENCES

An appeal for the same application was filed on September 18, 2008. An Office Action was mailed December 12, 2008 to reopen prosecution. The instant appeal is in response to the Office Action that reopened the prosecution.

STATUS OF CLAIMS

Claims rejected: 1-4, 6-11, 13-18, and 20-21

Claims appealed: 1-4, 6-11, 13-18, and 20-21

Claims pending: 1-4, 6-11, 13-18, 20-21, and 25

Claims allowed: none

Claims withdrawn: 5, 12, 19, 22- 24, and 26-29

Claims cancelled: none

STATUS OF AMENDMENTS

37 CFR 41.37(c)(1)(iv) requires a statement of the status of any amendment filed subsequent to final rejection.

There is no final rejection and therefore no status of amendments

SUMMARY OF THE CLAIMED SUBJECT MATTER

Applicant believes the submission is in compliance with the requirements of 37 CFR §.41.37 (c)(1)(v).

This invention is directed to a cover for use with an inflatable modular structure. The inflatable modular structure has a core with at least two longerons and a plurality of attachment elements disposed thereon for cooperating with a plurality of covers such that each cover is releasably attached to the core in the pre-deployed configuration. There is also an inflatable shell attached to the core, the inflatable shell having an internal surface that generally encloses the longerons and the plurality of covers, and in the pre-deployed configuration the inflatable shell is folded over, and secured to, the covers. In the deployed configuration the inflatable shell is pumped up with air, unfolded from the covers, the covers subsequently released from the core and the covers are removably attached to a plurality of affixing members disposed on the inside surface of the inflatable shell such that the covers serve as a foundation for securing items in place. One aspect of the cover is to provide support and protection for an inflatable shell when the module is in a pre-flight mode. Upon deployment, the cover can act as a useful structure, for example, by retaining equipment.

Referring to independent claim 1, the cover 100 (refer to page/line number 8/19) has a first segment 102 (8/19) of at least one substantially sheet like and substantially rigid structure and having a longitudinal axis, an interior surface 106 (8/20-21), an arcuate exterior surface 104 (8/19-20) disposed generally opposite of the interior surface and perpendicular to the length of the longitudinal axis. The arcuate exterior surface of the first segment 104 (8/19-20) provides protection to the inflatable shell 132 (10/21) from unwanted contact with the core during the pre-deployed configuration. The arcuate exterior surface 104 (8/19-20) has at least one affixing member 138 (11/28) for cooperating with at least one affixing member on the interior surface of the inflatable

shell 136 (11-27) such that the arcuate exterior surface is removably attached to the interior surface of the inflatable shell during the deployed configuration. A second segment 108 (8/21) having a substantially flat surface and is used to substantially secure items in place when the arcuate exterior surface 104 (8/19-20) is fastened to the interior surface of the inflatable shell in the deployed configuration. There are a plurality of ribs 110 (8/27) disposed between, and joined to, the inner surface of the first segment 106 (8/20-21) and the substantially flat surface of the second segment, and a plurality of attachment elements 114 (9/9) disposed on the ribs adapted to cooperate with the attachment elements on the longeron 116 (9/10) such that the cover is releasably attached to the core in the pre-deployed configuration.

Addressing claim 2, there is claimed the invention for a cover 100 (8/19) for use with a core of an inflatable modular structure 124 (10/9). The core 124 (10/9) has a plurality of attachment elements, is claimed. The cover has a first segment 102 (8/19) of at least one substantially sheet like and substantially rigid structure and having a longitudinal axis, an interior surface 106 (8/20-21), and an arcuate exterior 104 (8/19-20) disposed generally opposite of the interior surface and surface perpendicular to the length of the longitudinal axis. There is also a second segment 108 (8/21) having a substantially flat surface, a plurality of ribs 110 (8/27) disposed between, and joined to, the inner surface of the first segment 106 (8/20-21) and the substantially flat surface of the second segment and the ribs 110 (8/27) having a plurality of attachment elements 114 (9/9) that cooperate with the attachment elements on the core 116 (9/10) such that the cover is removably attached to the core.

Addressing claim 3, the claim depends from claim 2 and further includes the core 124 (10/9) has at least two longerons 118 (9/11) and the cover 100 (8/19) has a width and each longerons 118 (9/11) having an outer edge and the width of the cover 128 (10/19) is substantially the distance between the outer edges of the longerons 118 (9/11) and the cover 100 (8/19) fits over the longerons 118 (9/11).

Turning now to claim 4, this claim depends from claim 2 and identifies that the second segment 108 (8/21) is substantially rigid.

Focusing on claim 6, this claim depends from claim 2 and identifies that the cover 100 (8/19) is substantially hollow.

As to claim 7, this claim depends from claim 2 wherein the first segment 102 (8/19) has an access opening. 142 (12/23).

Regarding claim 8, this claim depends from claim 2 wherein the second segment has an access opening 144 (13/9).

Referring now to claim 9, this claim addresses a cover 100 (8/19) for use with at least two braces of a core of an inflatable modular structure, the braces having a plurality of attachment elements. The cover 102 (8/19) has a first segment 102 (8/19) of at least one substantially sheet like and substantially rigid structure and having a longitudinal axis, an interior surface 106 (8/20-21), and having an arcuate exterior surface 104 (8/19-20) disposed generally opposite of the interior surface and perpendicular to the length of the longitudinal axis. There is also a second segment 108 (8/21) having a substantially flat surface and a plurality of ribs 110 (8/27) disposed between, and joined to, the inner surface of the first segment 106 (8/20-21) and the substantially flat surface of the second segment 108 (8/21) and the ribs 114 (9/9) having a plurality of attachment elements. The attachment elements 114 (9/9) on the ribs 114 (9/9) cooperating with the attachment elements on the braces such that the cover is removably attached to the braces.

Tuning now to claim 10, this claim depends from claim 9 wherein the core 124 (10/9) further comprises at least two longerons 118 (9/11) and the cover 102 (8/19) has a width and each longeron having an outer edge and the width of the cover is substantially the distance between the outer edges of the longerons and the cover fits over the longerons.

Referring now to claim 11, this claim depends from claim 9 wherein the second segment 108 (8/21) is substantially rigid.

Addressing claim 13, this claim depends from claim 9 wherein the cover 100 (8/19) is substantially hollow.

Focusing now on claim 14, this claim is directed to a cover 100 (8/19) for use with at least two longerons 118 (9/11) of a core 124 (10/9) of an inflatable modular structure, where the longerons 118 (9/11) have a plurality of attachment elements 116 (9/22). The cover 100 (8/19) has a first segment 102 (8/19) of at least one substantially sheet like and substantially rigid structure and having a longitudinal axis, an interior surface 106 (8/20-21), and having an arcuate exterior surface 104 (8/19-20) disposed generally opposite of the interior surface and along the length of the longitudinal axis. There is a second segment 108 (8/21) having a substantially flat surface; a plurality of ribs 110 (8/27) disposed between, and joined to, the inner surface of the first segment and the substantially flat surface of the second segment and the ribs having a plurality of attachment elements 114 (9/9). The attachment elements on the ribs cooperating with the attachment elements on the longerons such that the cover is removably attached to the longerons.

Claim 15 depends from claim 14 wherein the cover has a width and each longeron having an outer edge and the width of the cover is substantially the distance between the outer edges of the longerons.

Turning to claim 16, this claim depends from claim 14 wherein the second segment is substantially rigid.

As to claim 17, this claim depends from claim 14 wherein the first segment has an access opening.

Focusing on claim 18, this claim depends from claim 14 wherein the second segment has an access opening.

Referring to claim 20, this claim depends from claim 14 wherein the cover is substantially hollow.

Claim 21 addresses a cover 100 (8/19) for being removably attached to the core of an inflatable modular structure 124 (10/9) having attachment elements disposed thereon. The cover 100 (8/19) has a first segment 102 (8/19) of at least one substantially sheet like and substantially rigid structure and having a longitudinal axis, an interior surface 106 (8/20-21), and having an arcuate exterior surface 104 (8/19-20) disposed generally opposite of the interior surface and perpendicular to the length of the longitudinal axis. There is also a second segment 108 (8/21) having a substantially flat surface and a plurality of ribs 110 (8/27) disposed between, and joined to, the inner surface of the first segment and the substantially flat surface of the second segment. The ribs 110 (8/27) have a plurality of attachment elements 114 (9/9) for cooperating with the attachment elements on the core.

Finally, as to claim 25, this claim is a linking claim directed to a method of using a cover with a core of an inflatable modular structure having a plurality of attachment elements thereon and an inflatable shell which utilizes the cover of claim 2.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Whether claim 1-4, 6-11, 13-18, and 20-21 are unpatentable under 35 USC § 102 for being anticipated by Moon, et al (USPN 6,892,497).

ARGUMENT

1. Synopsis of the Response

This appeal is in response to an Office Action that reopened prosecution of an appeal that was pending before the USPTO for the same application.

The Office Action prompting this new appeal (the latest in a line of six office actions over the last five years and numerous new prior art searches) rejected every claim in the application as being anticipated. In response, applicant notes that the Office Action failed to identify every claim limitation in the prior art, relied upon prior art in irrelevant fields, disregarded the specification, and asserted arguments supporting the rejections that have no basis in the MPEP.

Claim 25 of the instant application is a linking claim. This claim was prosecuted and addressed by the examiner in each Office Action until the most recent Office Action. In the most recent Office Action, claim 25 is not rejected, accepted, or addressed in any manner. As such, lacking any rejection, Applicant contends that claim 25 is ready for issuance. As a linking claim the remaining claims should also be issued.

2. Background

1. The technology

The present application addresses an inflatable spacecraft longeron cover. It is part of a cutting edge twenty-first century expandable aerospace module that can be used, for example, in Earth orbit.

The module is launched in a compressed state and once deployed inflates to many times the volume of the pre-deployed state. This is accomplished, partly, by way of a flexible shell.

The cover aids in safely securing the shell to the core in the pre-launch configuration. Figure 1b below is illustrative of the cover.

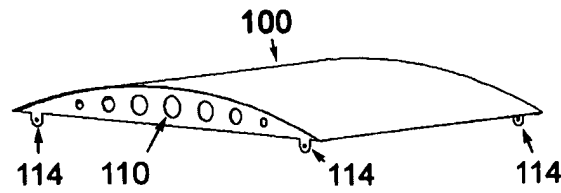


Figure 1e below shows one embodiment where the longeron cover straddles two longerons on the core of an inflatable module.

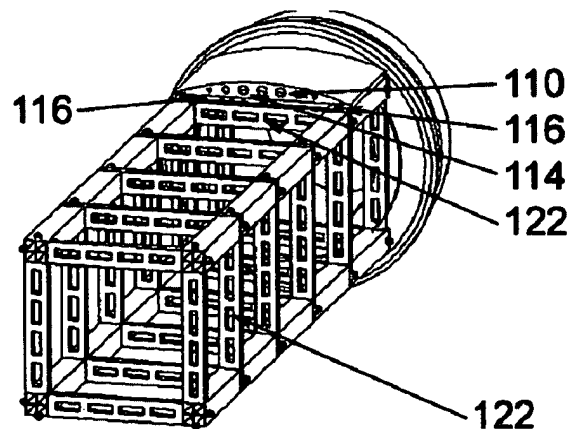


Fig 1e

A cross sectional view of the core is shown in Figure 3 that identifies how a group of covers in one embodiment operate in conjunction with the core.

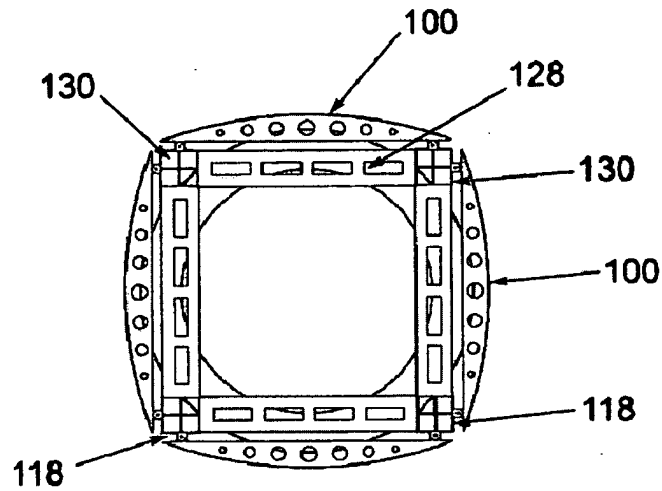


Fig 3

The inflatable shell is then folded over the covers. The cover provides a form for the shell and protection from the longerons as shown in Figure 4 for one embodiment.

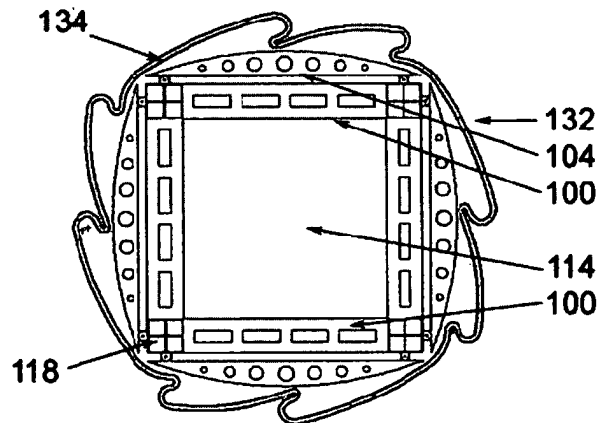


Fig 4

Finally, when the inflatable shell is expanded in the deployed stage, the covers can be attached to the shell as shown below. This allows the cover to be used as a foundation for attaching other equipment.

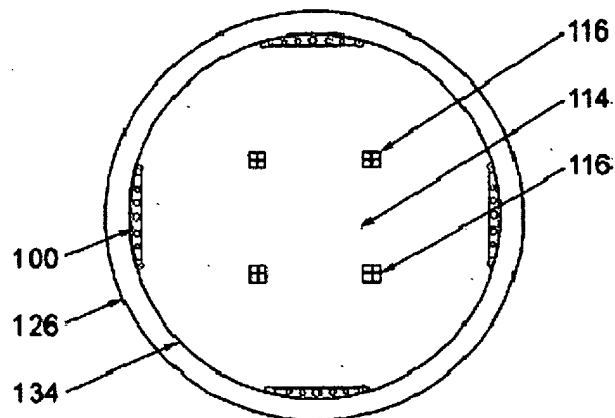
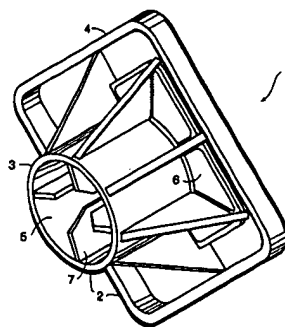


Fig 6

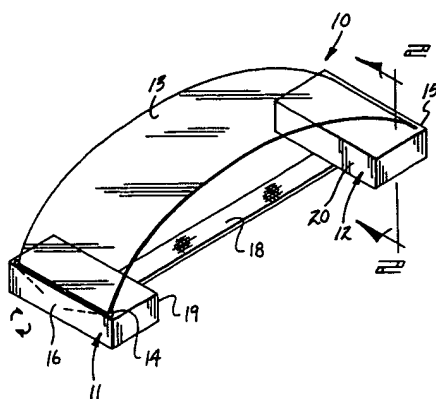
II. The prior Office Actions

The first Office Action dated July 14, 2006 alleged that a protective cover for covering an end of a concrete reinforcing bar fully anticipated the invention. (Refer to the prosecution history incorporated fully by reference herein). A response fully addressing the Office Action was filed, which did not amend the claims nor did it limit, or change, the scope of the invention. (Refer to the prosecution history incorporated fully by reference herein). Figure 2 of that patent is reproduced below:



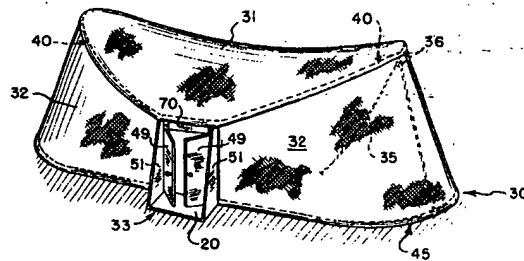
The second Office Action dated November 6, 2006 based upon a new search took the position that a facial sunscreen for use on a beach – not identified in the first search – anticipated the invention. (Refer to the prosecution history incorporated fully by reference herein). A response fully addressing the Office Action was filed, which did not amend the claims nor did it limit, or change, the scope of the invention. (Refer to the prosecution history incorporated fully by reference herein).

The sunshade is shown below:



It was argued in the third Office Action dated April 16, 2007 after yet another prior art search that a stressed building structure – basically a pup-tent that was not identified in the first or second searches – anticipated the invention. (Refer to the prosecution history incorporated fully by reference herein). Again, a responsive fully addressing the Office Action was filed, which did not amend the claims nor did it limit, or change, the scope of the invention. (Refer to the prosecution history incorporated fully by reference herein).

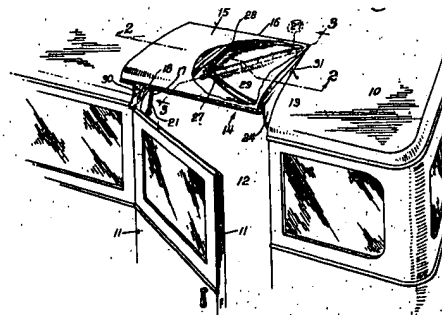
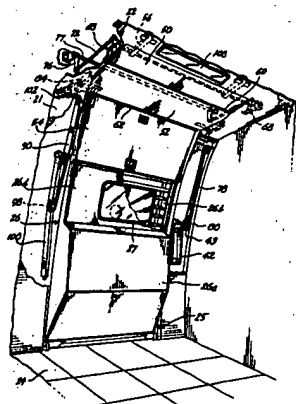
Figure 2 from that patent is reproduced below:



The fourth Office Action dated August 10, 2007 reasserted that the pup-tent fully anticipated the spacecraft invention. (Refer to the prosecution history incorporated fully by reference herein). The Office Action contained yet another new “Notice of References Cited”, identifying references not before cited in the prior office actions.

In a discussion with the examiner, after the fourth Office Action, the applicant agreed to amend the claims for the sole purpose of ending the protracted prosecution. (Refer to the prosecution history incorporated fully by reference herein).

A fifth Office Action resulted dated June 30, 2008, which relied upon yet another new prior art search citing a top door for an automobile from 1925 and a sliding door for an airplane – neither identified in the first or second searches – as anticipatory. (Refer to the prosecution history incorporated fully by reference herein). Both are shown below:



After the fifth Office Action an appeal was filed. In response to that appeal, a sixth Office Action was received. The sixth Office Action – received now more than five (5) years after filing the application – was based upon U.S. Patent Number 6,892,497 (the ‘497 Patent) to Moon et al and reopened prosecution. The ‘497 Patent was not asserted in prior Office Actions, nor did the ‘476 Patent appear in any list of references cited by the examiner in the earlier actions. Thus, it appears the ‘476 Patent is the result of still another prior art search.

The instant appeal followed the sixth Office Action pursuant to 37 C.F.R. 41.31(a), MPEP 1204 (appeal is allowed for claims twice rejected).

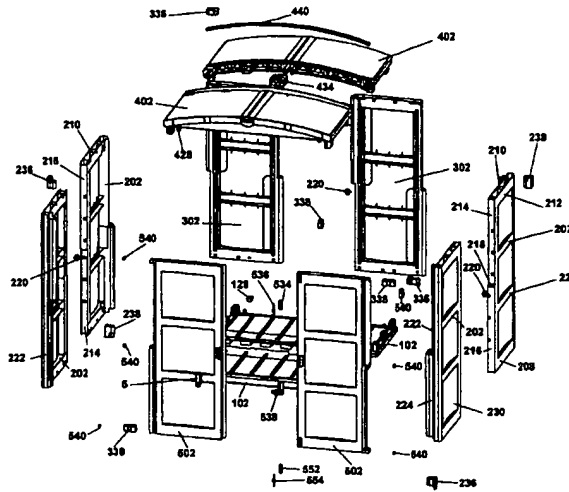
3. The current rejections

As will be demonstrated, clear language in the claims has been ignored in this case even though all the rejections were based upon anticipation. Also, it is evident that the written description of the present application has not factored into an understanding by the examiner of the elements of the invention. This has rippled through the prosecution and is likely responsible for the fact that art is being cited from entirely irrelevant fields. Further, the impact of the election not to pursue the method claims in response to the restriction requirement is being viewed as limiting the applicability of specific references to structural elements as to the apparatus claims that are being asserted.

I. Claims 1-4, 6-11, 13-18, and 20-21

The ‘497 Patent is directed to a plastic panel enclosure system. Basically, a plastic storage shed.

Figure 2 of the patent appears below.



The Office Action rejected all the claims as anticipated under 35 U.S.C. § 102(e) based upon the following rational:

“Moon (figures 2, 14) shows a cover comprising a first segment (404) having a longitudinal axis, an interior surface and having an arcuate exterior surface disposed generally opposite the interior surface and perpendicular to the length of the axis, the arcuate exterior surface of the first segment of at least one substantially sheet like and substantially rigid structure, having at least one affixing member (the structure where part 440 goes into, figure 17), a second segment (406, figures 14-16) having a substantially flat surface, a plurality of ribs disposed between and joined to the inner surface of the first segment and the substantially flat surface of the second segment, a plurality of attachment elements (416) disposed on the ribs, the second segment is substantially rigid, the cover is substantially hollow, the first segment having an access opening, the second segment having an access opening.”

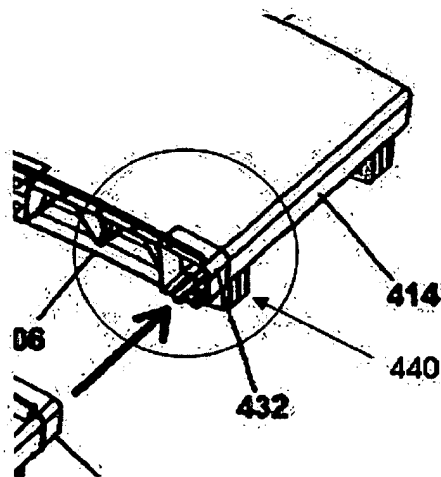
Figure 2 does not identify element 404 as asserted in the rejection. Figure 14 identifies element 404 as the top surface of a single panel on top of the shed:

“Referring to FIGS. 14-16, the enclosure 10 includes a pair of like-constructed roof panels 402. Each panel has a top surface 404, ...” ‘497 Patent, column 8, lines 34-35.

It is black letter law that, “To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently.” *In re Schreiber*, 128 F.3d 1473, 1477 (Fed.Cir.1997).

First, claim 1 of the instant application states that the attachment elements are, “...disposed on the ribs...” Nothing in the ‘497 Patent identifies that any alleged attachment elements (440) are disposed on the ribs.

A magnified portion of figure 14 of the ‘497 Patent, with a circle to focus the analysis and an arrow to identify the alleged attachment element, clearly shows that the alleged attachment element is not attached to anything remotely resembling ribs as identified in the instant application (no arrow is used to identify the alleged ribs, since the Office Action entirely fails to identify what structure is being asserted as the ribs):



Another reason the present invention is not anticipated is that the present claims cite "...at least one affixing member..." per cover. The '497 Patent has only one-half of an affixing member for what is alleged to be a cover and requires two alleged first segments (404) to form a single affixing member (the structure where part 440 goes into, figure 17) to hold the arrow like structure of item 440.

Figure 17 below identifies that this distinction and in particular in the circle added for clarity.

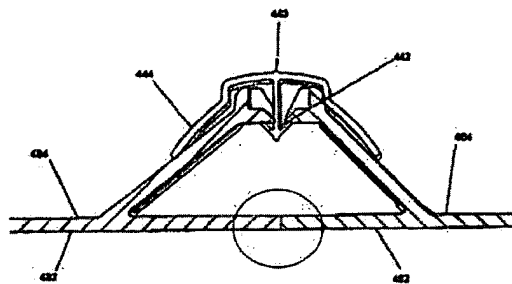


FIG. 17

This is further supported by the '497 specification that identifies that each panel has one elevated position (the combination of which allegedly forms the affixing member):

"Referring to FIGS. 14-16, the enclosure 10 includes a pair of like-constructed roof panels 402. Each panel has a top surface 404, ..." '497 Patent, column 8, lines 34-35.

"...Moreover, the roof panel 402 construction provides an elevated position for the weatherstrip 440 allowing water to be quickly directed away from the weatherstrip." '497 Patent, column 9, lines 4-7.

In the '497 Patent, it is the combination of the two elevated positions, one on each separate roof panel, that supports the weatherstrip. Thus, each panel has only half of the alleged affixing member. The '497 Patent does not describe how an arrow type structure

in figure 17 could operate to affix to the first segment with only one roof panel 402 having a single elevated position. In order to anticipate, a prior art reference must not only disclose all of the limitations of the claimed invention, but also be enabled. *Elan Pharms., Inc. v. Mayo Found.*, 346 F.3d 1051, 1054 (Fed. Cir. 2003) (“*Elan*”). A reference is enabled when its disclosures are sufficient to allow one of skill in the art to make and use the claimed invention. *Id.* Nothing in the ‘497 Patent enables half of an affixing member comprised of a single elevated position. Further, nothing in the ‘497 Patent identifies any panel with more than one elevated position. Thus no single panel, or alleged first segment, is identified with an affixing member. It follows that the first segment is not identified with an affixing member in the Office Action.

This is not unusual since figure 17 of the ‘497 Patent is illustrating a water resistant connection between two independent roof panels for a plastic storage shed and not an affixing member to operate on a space vehicle in cooperation with and inflatable shell. If the alleged affixing member were used in connection with an inflatable shell, it is entirely likely that such a rough and extensive protrusion would damage the inflatable shell.

Further, while the ‘497 Patent indicates that the ends of the wall panels can be rigid (column 2, lines 50-53; column 2, lines 64-67; column 5, lines 13-18; and claim 1) nothing the ‘497 Patent identifies that the alleged first segment (404) is rigid, much less substantially rigid. Claim 1 of the instant application identifies that the first segment be “... substantially rigid ...”. Since the ‘497 Patent does not identify the “substantially rigid” element of the claims at issue, the ‘497 Patent cannot be invalidating prior art.

Also, the ‘497 Patent is directed to a plastic structure. Nothing in the ‘497 Patent remotely suggests that such a plastic material would find applicability as identified in claim 1 where, “... a first segment ... adapted to provide protection to the inflatable shell from unwanted contact with the core during pre-deployed configuration.”

Still further, claim 1 also identifies that the arcuate exterior surface as, "...having at least one affixing member for cooperating with at least one affixing member on the interior surface of the inflatable shell..." Nothing in the '497 Patent identifies that the alleged at least one affixing member (the structure where part 440 goes into, figure 17) could cooperate with the interior surface of an inflatable shell. Again, thus lacking support for anticipation based upon the '497 Patent.

Finally, the Office Action fails to identify the "substantially flat" element of the claims. The alleged first surface (404) is identified in the Office Action as "arcuate." See figure 14 below:

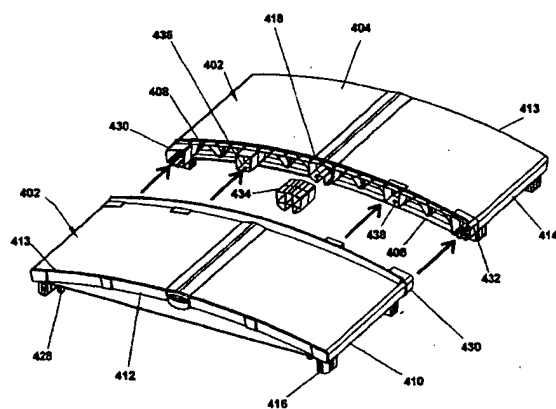


FIG. 14

Notably, the alleged second surface (406) in figure 14 clearly shares the same curvature. However, the Office Action identifies the second surface as "substantially flat"; not "arcuate." The Office Action entirely fails to establish that the identical curvature of the two surfaces in the '497 Patent are curved enough to be "arcuate" and at the same time qualify as being "substantially flat". Therefore, at least the "substantially flat" claim element is not addressed in the Office Action and the rejection for anticipation should fail.

Applicant is also concerned that the examiner's ongoing prior art searches in this case is impeding timely prosecution of this application. For example:

In general the second examiner should not take an entirely new approach to the application or attempt to reorient the point of view of the previous examiner, or make a new search in the mere hope of finding something; see also MPEP § 904 How to Search (excerpt) The first search should be such that the examiner need not ordinarily make a second search of the prior art, unless necessitated by amendments to the claims by the applicant in the first reply, except to check to determine whether any reference which would appear to be substantially more pertinent than the prior art cited in the first Office action has become available subsequent to the initial prior art search. The first search should cover the invention as described and claimed, including the inventive concepts toward which the claims appear to be directed. It should not be extended merely to add immaterial variants. MPEP § 704.01 Search (excerpt).

The first search should be such that the examiner need not ordinarily make a second search of the prior art, unless necessitated by amendments to the claims by the applicant in the first reply, except to check to determine whether any reference which would appear to be substantially more pertinent than the prior art cited in the first Office action has become available subsequent to the initial prior art search. The first search should cover the invention as described and claimed, including the inventive concepts toward which the claims appear to be directed. It should not be extended merely to add immaterial variants. MPEP § 904. How to Search (excerpt).

There is no reason whatsoever to justify the new art cited, because a proper initial search ought to have revealed those references. New searches were not warranted because the Applicant's claim amendment in response to the fourth Office Action did not change the scope of the invention nor were there advanced novel arguments to overcome the cited art.

Applicant is further concerned about the following statement in the Office Action:

"With respect to the limitations to the core and the method of usage thereof, the elected invention is to the cover only and the limitations to the

cover are also fully met by the reference above, and the reference is able to function as claimed.”

Applicant was unable to find the basis for any such language in the MPEP. Such language appears in contradiction to established patent prosecution procedures. “During patent examination, the claims are given the broadest reasonable interpretation consistent with the specification.” MPEP § 904.01, Analysis of Claims (See *In re Morris*, 127 F.3d 1048, 44 USPQ2d 1023 (Fed. Cir. 1997)) (emphasis added).

Each Office Action, including the present Office Action, makes it clear that the claimed cover is considered in a vacuum entirely removed from the point of reference of the specification. This would explain why so many non-relevant areas of prior art were cited during prosecution.

The most recent rejection highlights this error. Nothing in the rejection identifies the cover as a structure used in an inflatable spacecraft even though the specification clearly identifies the cover with such a craft. The error also extends to the claims. For example, claim 15 identifies the cover in regards to a characteristic of the core. However, this is not addressed in the Office Action.

It appears the numerous Office Actions requires the applicant to claim an important element of a 21st century spacecraft without any reference to the spacecraft based entirely upon an election made in response to a restriction requirement as to method claims. Applicant was unable to find any statutory or case law precedent to support the position in the Office Action.

Further, the Examiner has never clearly articulated or indicated how any of the numerous rejections in this case may be overcome and how problems may be resolved. The foregoing are examples of the clear violations of the principles of compact prosecution that plague this case.

II. Further arguments directed to the individual claims

Claim 2

The limitations as identified supra in claim 1 are also present in independent claim 2. For the reason stated in the argument as to claim 1, claim 2 is also not anticipated by the '497 Patent.

Claim 3

Claim 3 depends from claim 2 and includes the limitation that the core further comprises at least two longerons and the cover has a width and each longerons having an outer edge and the width of the cover is substantially the distance between the outer edges of the longerons and the cover fits over the longerons. Nothing in the '497 Patent identifies longerons, or a cover, or a width in relation to a cover and a longeron.

Claim 4

Claim 4 depends from claim 2 and additionally identifies that the second segment is substantially rigid. Nothing in the '497 Patent identifies a second segment as in the present application or that the second segment of the cover is substantially rigid.

Claim 6

Claim 6 depends from claim 2 and further identifies the cover is substantially hollow. Nothing in the '497 Patent identifies a cover as in the present invention much less that such a cover is substantially hollow.

Claim 7

Claim 7 depends from claim 2 and identifies that the first segment has an access opening. Nothing in the '497 Patent identifies an access opening for a first segment as described in the present application.

Claim 8

Claim 8 depends from claim 2 where the second segment has an access opening. Nothing in the '497 Patent identifies an access opening for a second segment as described in the present application.

Claim 9

The limitations as identified supra in claim 1 are also present in independent claim 2. For the reason stated in the argument as to claim 1, claim 9 is also not anticipated by the '497 Patent.

Claim 9 identifies that the attachment elements on the ribs cooperating with the attachment elements on the braces such that the cover is removably attached to the braces. Nothing in the '497 Patent identifies attachment elements on ribs or on braces much less that the attachment elements cooperate such that the cover is removably attached to the braces.

Claim 10

Claim 10 depends from claim 9 wherein the core further comprises at least two longerons and the cover has a width and each longeron having an outer edge and the

width of the cover is substantially the distance between the outer edges of the longerons and the cover fits over the longerons. Nothing in the '497 Patent identifies a cover, a longeron, or describes a width in regards to a cover and longerons.

Claim 11

Claim 11 depends from claim 9 wherein the second segment is substantially rigid. Nothing in the '497 Patent identifies a second segment that is substantially rigid.

Claim 13

Claim 13 depends from claim 9 wherein the cover is substantially hollow. Nothing in the '497 Patent identifies a cover for a spacecraft that is substantially hollow.

Claim 14

The limitations as identified supra in claim 1 are also present in independent claim 2. For the reason stated in the argument as to claim 1, claim 14 is also not anticipated by the '497 Patent.

Nothing in the '497 Patent identifies a cover as in claim 14, or longerons, or a first segment having an arcuate exterior surface disposed generally opposite of the interior surface and along the length of the longitudinal axis, or ribs, or ribs having a plurality of attachment elements, or the attachment elements on the ribs cooperating with the attachment elements on the longerons such that the cover is removably attached to the longerons.

Claim 15

Claim 15 depends from claim 14 wherein the cover has a width and each longeron having an outer edge and the width of the cover is substantially the distance between the outer edges of the longerons. Nothing in the '497 Patent identifies a cover for a spacecraft, longerons, a width of a cover, or that the width of the cover is related to the distance between longerons.

Claim 16

Claim 16 depends from claim 14 wherein the second segment is substantially rigid. Nothing in the '497 Patent identifies a second segment as claimed here, much less that such a structure is substantially rigid.

Claim 17

Claim 17 depends from claim 14 wherein the first segment has an access opening. Nothing in the '497 Patent identifies a first segment as in the present application or an access opening in such a structure.

Claim 18

Claim 18 depends from claim 14 wherein the second segment has an access opening. Nothing in the '497 Patent identifies a second segment as described in the instant application or that such a structure has an access opening.

Claim 20

Claim 20 depends from claim 14 wherein the cover is substantially hollow. Nothing in the '497 Patent identifies a cover as disclosed in the present application or that such a structure is substantially hollow.

Claim 21

The limitations as identified supra in claim 1 are also present in independent claim 2. For the reason stated in the argument as to claim 1, claim 21 is also not anticipated by the '497 Patent.

Claim 21 identifies a cover for being removably attached to a core of an inflatable modular structure having attachment elements. The cover has a first segment of at least one substantially sheet like and substantially rigid structure and having a longitudinal axis, an interior surface, and having an arcuate exterior surface disposed generally opposite of the interior surface and perpendicular to the length of the longitudinal axis; a second segment having a substantially flat surface. There is also a plurality of ribs disposed between, and joined to, the inner surface of the first segment and the substantially flat surface of the second segment and the ribs having a plurality of attachment elements for cooperating with the attachment elements on the core.

The Office Action entirely fails to address claim 21 independently. Rather, just grouping claim 21 together with all the other rejected claims. It is therefore not surprising that the '497 Patent does not disclose a cover for being removably attached to a core of an inflatable modular structure having attachment elements. Nor, is there any reference in the '497 Patent to the cover having a first segment of at least one substantially sheet like and substantially rigid structure and having a longitudinal axis, an interior surface, and having an arcuate exterior surface disposed generally opposite of the interior surface and perpendicular to the length of the longitudinal axis. Further, nothing in the '497 Patent identifies a second segment having a substantially flat surface. There is also nothing in the '497 Patent disclosing a plurality of ribs disposed between, and joined to, the inner surface of the first segment and the substantially flat surface of the

second segment and the ribs having a plurality of attachment elements for cooperating with the attachment elements on the core.

Claim 25

Claim 25 is a linking claim that was not addressed by the latest Office Action and therefore should stand ready for issuance along with the related methods and apparatus claims including claims 1 and 2. It addresses a method of using a cover with a core of an inflatable modular structure having a plurality of attachment elements thereon and an inflatable shell which utilizes the cover of claim 2.

III. Other arguments

The Office Action, as with the previous office actions, makes the baseless assertion that;

“With respect to the limitations to the core and the method of usage thereof, the elected invention is to the cover only and the limitations to the cover are also fully met by the reference above, and the reference is able to function as claimed.”

Claim 1 is a product claim; not a method claim. Claim 1 identifies that:

“... the arcuate exterior surface having at least one affixing member for cooperating with at least one affixing member on the interior surface of the inflatable shell such that the arcuate exterior surface is removably attached to the interior surface of the inflatable shell during the deployed configuration...”

The arcuate exterior surface has attachment elements that cooperate with affixing member of interior surface of the inflatable shell. The inflatable shell – as clearly identified in the specification – is not part of the “core”. Therefore, this limitation must be present in the newfound prior art to be anticipating. It is not.

Election of invention in response to a restriction requirement does not trump the language of an elected claim and the examiner has failed to cite any case precedent or related statutory basis to support such a position.

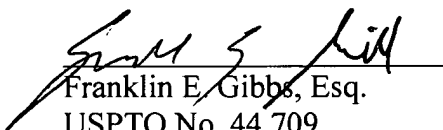
4. Summary

For the foregoing reasons, Applicant maintains that the '497 Patent does not render the invention of the instant application anticipated. The Board of Patent Appeals and Interferences is respectfully requested to overturn the Examiner's rejections of Claims 1-4, 6-11, 13-18, and 20-21.

If the Applicant's attorney can be of any further assistance, please call the undersigned at the number provided.

Respectfully submitted,

Dated: March 3, 2009


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CLAIMS APPENDIX

1. A cover for use with an inflatable modular structure, the inflatable modular structure having a core with at least two longerons and a plurality of attachment elements disposed thereon for cooperating with a plurality of covers such that each cover is releasably attached to the core in the pre-deployed configuration, an inflatable shell attached to the core, the inflatable shell having an internal surface that generally encloses the longerons and the plurality of covers, and in the pre-deployed configuration the inflatable shell is folded over, and secured to, the covers, and in the deployed configuration the inflatable shell is pumped up with air, unfolded from the covers, the covers subsequently released from the core and the covers being removably attached to a plurality of affixing members disposed on the inside surface of the inflatable shell such that the covers serve as a foundation for securing items in place, the cover comprising:

a first segment of at least one substantially sheet like and substantially rigid structure and having a longitudinal axis, an interior surface, and having an arcuate exterior surface disposed generally opposite of the interior surface and perpendicular to the length of the longitudinal axis, the arcuate exterior surface of the first segment being adapted to provide protection to the inflatable shell from unwanted contact with the core during the pre-deployed configuration and the arcuate exterior surface having at least one affixing member for cooperating with at least one affixing member on the interior surface of the inflatable shell such that the arcuate exterior surface is removably attached to the interior surface of the inflatable shell during the deployed configuration;

a second segment having a substantially flat surface and the second segment being adapted to substantially secure items in place when the arcuate exterior surface is fastened to the interior surface of the inflatable shell in the deployed configuration; and a plurality of ribs disposed between, and joined to, the inner surface of the first segment and the substantially flat surface of the second segment, and a plurality of attachment elements disposed on the ribs adapted to cooperate with the attachment elements on the longeron such that the cover is releasably attached to the core in the pre-deployed configuration.

2. A cover for use with a core of an inflatable modular structure, the core having a plurality of attachment elements, the cover comprising:

a first segment of at least one substantially sheet like and substantially rigid structure and having a longitudinal axis, an interior surface, and having an arcuate exterior disposed generally opposite of the interior surface and surface perpendicular to the length of the longitudinal axis;

a second segment having a substantially flat surface; a plurality of ribs disposed between, and joined to, the inner surface of the first segment and the substantially flat surface of the second segment and the ribs having a plurality of attachment elements; and the attachment elements on the ribs cooperating with the attachment elements on the core such that the cover is removably attached to the core.

3. The cover of claim 2 wherein the core further comprises at least two longerons and the cover has a width and each longerons having an outer edge and the width of the

cover is substantially the distance between the outer edges of the longerons and the cover fits over the longerons.

4. The cover of claim 2 wherein the second segment is substantially rigid.

5. (NOT APPEALED).

6. The cover of claim 2 wherein the cover is substantially hollow.

7. The cover of claim 2 wherein the first segment has an access opening.

8. The cover of claim 2 wherein the second segment has an access opening.

9. A cover for use with at least two braces of a core of an inflatable modular structure, the braces having a plurality of attachment elements, the cover comprising:

a first segment of at least one substantially sheet like and substantially rigid structure and having a longitudinal axis, an interior surface, and having an arcuate exterior surface disposed generally opposite of the interior surface and perpendicular to the length of the longitudinal axis;

a second segment having a substantially flat surface;

a plurality of ribs disposed between, and joined to, the inner surface of the first segment and the substantially flat surface of the second segment and the ribs having a plurality of attachment elements; and

the attachment elements on the ribs cooperating with the attachment elements on the braces such that the cover is removably attached to the braces.

10. The cover of claim 9 wherein the core further comprises at least two longerons and the cover has a width and each longeron having an outer edge and the width of the cover is substantially the distance between the outer edges of the longerons and the cover fits over the longerons.

11. The cover of claim 9 wherein the second segment is substantially rigid.

12. (NOT APPEALED).

13. The cover of claim 9 wherein the cover is substantially hollow.

14. A cover for use with at least two longerons of a core of an inflatable modular structure, the longerons having a plurality of attachment elements, the cover comprising:

a first segment of at least one substantially sheet like and substantially rigid structure and having a longitudinal axis, an interior surface, and having an arcuate exterior surface disposed generally opposite of the interior surface and along the length of the longitudinal axis;

a second segment having a substantially flat surface; a plurality of ribs disposed between, and joined to, the inner surface of the first segment and the substantially flat surface of the second segment and the ribs having a plurality of attachment elements; and

the attachment elements on the ribs cooperating with the attachment elements on the longerons such that the cover is removably attached to the longerons.

15. The cover of claim 14 wherein the cover has a width and each longeron having an outer edge and the width of the cover is substantially the distance between the outer edges of the longerons.

16. The cover of claim 14 wherein the second segment is substantially rigid.

17. The cover of claim 14 wherein the first segment has an access opening.

18. The cover of claim 14 wherein the second segment has an access opening.

19. (NOT APPEALED).

20. The cover of claim 14 wherein the cover is substantially hollow.

21. A cover for being removably attached to a core of an inflatable modular structure having attachment elements disposed thereon, the cover comprising:

a first segment of at least one substantially sheet like and substantially rigid structure and having a longitudinal axis, an interior surface, and having an arcuate exterior surface disposed generally opposite of the interior surface and perpendicular to the length of the longitudinal axis;

a second segment having a substantially flat surface; and

a plurality of ribs disposed between, and joined to, the inner surface of the first segment and the substantially flat surface of the second segment and the ribs having a plurality of attachment elements for cooperating with the attachment elements on the core.

22. (NOT APPEALED).

23. (NOT APPEALED).

24. (NOT APPEALED).

25. A method of using a cover with a core of an inflatable modular structure having a plurality of attachment elements thereon and an inflatable shell which utilizes the cover of claim 2.

26. (NOT APPEALED).

27. (NOT APPEALED).

28. (NOT APPEALED).

29. (NOT APPEALED).

EVIDENCE APPENDIX

There is no evidence apart from that appearing in the file history. The file history being incorporated completely herein by reference.

RELATED PROCEEDINGS APPENDIX

There are no proceeding related to this patent application.